

**In the Claims**

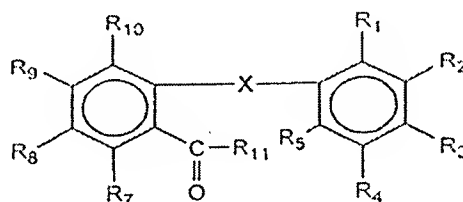
Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1-22. Canceled.

23. (Previously presented) A method for inhibiting calcium channel activity in a cell having a calcium channel comprising:

contacting the cell having the calcium channel with a compound in an amount effective to inhibit calcium channels,

wherein the compound has the general structural formula:



wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, and R<sub>10</sub> independent of one another, are selected from the group consisting of -H, halogen, piperonyl, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, (C<sub>1</sub>-C<sub>6</sub>) alkoxy -CN, -OR', -SR', -NO<sub>2</sub>, -NR'R', amino acid, -C(O)R', -C(S)R', -C(O)OR', -C(S)OR', -C(O)SR, -C(S)SR', -C(O)N(R')<sub>2</sub>, -C(O)C(O)R', -C(S)C(O)R', -C(O)C(S)R', -C(S)C(S)R', -C(O)C(O)OR', -C(S)C(O)OR', -C(O)C(S)OR', -C(O)C(O)SR', -C(S)C(S)OR', -C(S)C(O)SR', -C(O)C(S)SR', -C(S)C(S)SR', -C(O)C(O)N(R')<sub>2</sub>, -C(S)C(O)N(R')<sub>2</sub>, -C(O)C(S)N(R')<sub>2</sub>, or -C(S)C(S)N(R')<sub>2</sub>;

wherein R<sub>11</sub> is selected from the group consisting of -NH-CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, -NH-CH<sub>2</sub>CH<sub>2</sub>N-(CH<sub>2</sub>)<sub>z</sub>-H, -N•(CH<sub>2</sub>)<sub>2</sub>N R<sub>15</sub>•(CH<sub>2</sub>)<sub>2</sub>, -R', -OR', -SR', -NO<sub>2</sub>, -N(R')<sub>2</sub>, -CO-R', -CS-R', -CO-OR', -CS-OR', -CO-SR', -CS-SR', -CO-N(R')<sub>2</sub>, and -CS-N(R')<sub>2</sub>;

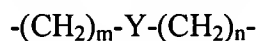
wherein each R' is (CH<sub>2</sub>)<sub>z</sub> -NR''R'' and wherein R'' is independently selected from the group consisting of (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkoxy, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, (C<sub>6</sub>-C<sub>20</sub>)

aryl, (C<sub>6</sub>-C<sub>20</sub>) substituted aryl, (C<sub>6</sub>-C<sub>26</sub>) alkaryl, substituted (C<sub>6</sub>-C<sub>26</sub>) alkaryl, and (C<sub>5</sub>-C<sub>7</sub>) heteroaryl wherein at least one atom of the heteroaryl is selected from the group consisting of a sulfur, a nitrogen, or an oxygen atom, wherein the aryl and alkaryl substituents are each independently selected from the group consisting of hydrogen, halogen, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl and trihalomethyl;

wherein z is 1-6;

wherein R<sub>15</sub> is selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, and (C<sub>1</sub>-C<sub>6</sub>) alkoxy;

wherein X is a group having the following formula;

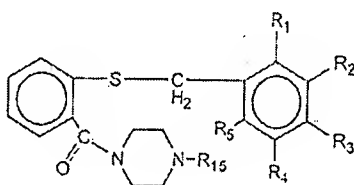


wherein Y is selected from the group consisting of S, N, and O; and

wherein m and n, independent of one another, are integers of 0-5.

24. (Original) The method of claim 23, wherein R<sub>11</sub> is selected from the group consisting of -NH-CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> and -NH-CH<sub>2</sub>CH<sub>2</sub>N-(CH<sub>2</sub>)<sub>z</sub>-H and wherein Y is S, m is 0 and n is 1-4.

25. (Original) The method of claim 24, wherein the compound has the general structural formula:

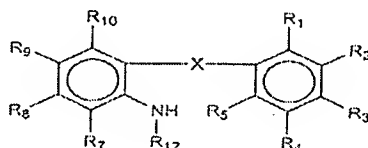


wherein R<sub>15</sub> is selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, and (C<sub>1</sub>-C<sub>6</sub>) alkoxy.

26. (Previously presented) A method for inhibiting calcium channel activity in a cell having a calcium channel comprising:

contacting the cell having the calcium channel with a compound in an amount effective to inhibit calcium channels,

wherein the compound has the general structural formula:



wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, and R<sub>10</sub> independent of one another, are selected from the group consisting of -H, halogen, piperonyl, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, (C<sub>1</sub>-C<sub>6</sub>) alkoxy -CN, -OR', -SR', -NO<sub>2</sub>, -NR'R', amino acid, -C(O)R', -C(S)R', -C(O)OR', -C(S)OR', -C(O)SR, -C(S)SR', -C(O)N(R')<sub>2</sub>, -C(O)C(O)R', -C(S)C(O)R', -C(O)C(S)R', -C(S)C(S)R', -C(O)C(O)OR', -C(S)C(O)OR', -C(O)C(S)OR', -C(O)C(O)SR', -C(S)C(S)OR', -C(S)C(O)SR', -C(O)C(S)SR', -C(S)C(S)SR', -C(O)C(O)N(R')<sub>2</sub>, -C(S)C(O)N(R')<sub>2</sub>, -C(O)C(S)N(R')<sub>2</sub>, or -C(S)C(S)N(R')<sub>2</sub>;

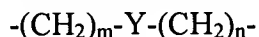
wherein R<sub>12</sub> is selected from the group consisting of -CO-NH-CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, -CO-NH-CH<sub>2</sub>CH<sub>2</sub>N-(CH<sub>2</sub>)<sub>z</sub>-H, and -CO-N•(CH<sub>2</sub>)<sub>2</sub>N R<sub>15</sub>•(CH<sub>2</sub>)<sub>2</sub>;

wherein each R' is (CH<sub>2</sub>)<sub>z</sub>-NR''R'' and wherein R'' is independently selected from the group consisting of (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkoxy, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, (C<sub>6</sub>-C<sub>20</sub>) aryl, (C<sub>6</sub>-C<sub>20</sub>) substituted aryl, (C<sub>6</sub>-C<sub>26</sub>) alkaryl, substituted (C<sub>6</sub>-C<sub>26</sub>) alkaryl, and (C<sub>5</sub>-C<sub>7</sub>) heteroaryl wherein at least one atom of the heteroaryl is selected from the group consisting of a sulfur, a nitrogen, or an oxygen atom, wherein the aryl and alkaryl substituents are each independently selected from the group consisting of hydrogen, halogen, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl and trihalomethyl;

wherein z is 1-6;

wherein R<sub>15</sub> is selected from the group consisting of halogen, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, and (C<sub>1</sub>-C<sub>6</sub>) alkoxy;

wherein X is a group having the following formula;



wherein Y is selected from the group consisting of S, N, and O; and

wherein m and n, independent of one another, are integers of 0-5.

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Conf. No.: 5765

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Art Unit: 1614

27-57. (Canceled).